

# PX Series Temperature Controllers

## Specifications

### DIN Sizes

1/4, 1/8, 72mm & 1/16

### Control Functions

Fuzzy Logic Control with PID Autotune

### Front Panel Key Choices

Eight or three button operation

### Housing

NEMA 4X Faceplate with LED Display

### Multiple Inputs

Choose: T/C, RTD, 4-20mA, 1-5 VDC, 0-20mA or 0-5 VDC

### Single or Dual Control Outputs

Relay, SSR Driver or 4-20mA

### Alarm Options

Process and / or Heater break alarms available

### Ramp/Soak Programming

Set four setpoints, four ramp rates and four soak periods

### Low Voltage Power Supply Option

24 V AC/DC supply is optional

### How to order

## PX SERIES ORDERING INFORMATION

**P** **X** **A** **B** - **C** **D** **E** **2** - **F** **V** - **G**



PX SERIES

### Box A: Model:

W = 3-Button keypad\*

Z = 8-Button keypad

\*Same price for all models except 1/16 DIN

### Box B: Front panel size

4 = 1/16Din\* 8 Button keypad  
3 Button keypad

5 = 1/8 DIN

7 = 72 mm

9 = 1/4 Din

\*Mounting Socket Required. See Accessories Section

### Box C: Kinds of Input

T = Thermocouple °C

R = Thermocouple °F

N = RTD (Pt 100) °C

S = RTD (Pt 100) °F

B = 4-20 mA DC, 1-5VDC

A = 0-20 mA DC, 0-5VDC

### Box D: Control Output 1

A = Relay contact (reverse action)

B = Relay contact (direct action)

C = SSR/SSC driver (reverse action)

D = SSR/SSC driver (direct action)

E = 4-20 mA DC (reverse action)

F = 4-20 mA DC (direct action)

G = Triac 1A, 250 VAC (reverse action)\*

H = Triac 1A, 250 VAC (direct action)\*

P = 0-10 VDC (reverse action)\*

Q = 0-10 VDC (direct action)\*

\*No agency approvals available for this option

### Box E: Control Output 2\*

Y = None

A = Relay contact (reverse action)

B = Relay contact (direct action)

C = SSR/SSC driver (reverse action)

D = SSR/SSC driver (direct action)

E = 4-20 mA DC (reverse action)

F = 4-20 mA DC (direct action)

G = Triac 1A, 250 VAC (reverse action)\*

H = Triac 1A, 250 VAC (direct action)\*

P = 0-10 VDC (reverse action)\*

Q = 0-10 VDC (direct action)\*

\*Not available on PXZ4

\*No agency approvals available for this option

### Box F: Alarm Options

2 = Heater break alarm\*

3 = Process alarm & heater break alarm\*

4 = None

5 = Process alarm

\*Heater break option requires current transformers.

See Accessories Section

Option not available on PXZ4, or with 4-20mA, 0-10V output

### Box G: Power Supply Options

Blank = 85 – 264 VAC (standard, no code necessary)

D = 24V AC/DC

# PXR Series Temperature Controllers

## Specifications

### DIN Sizes

1/32, 1/16, 1/8 & 1/4

### Advanced Control Functions

PID Plus Self Tuning; PID Plus Fuzzy Control; Auto-tuning

### Housing

NEMA 4X / IP66 Faceplate with large LED Display

### Multiple Inputs

Choose: T/C, RTD, 4-20mA, 1-5 VDC, 0-20mA or 0-5 VDC

### Single or Dual Control Outputs

Relay, SSR Driver or 4-20mA

### Programmable Alarm Functions

2 programmable SPST relays with ON/Off delay function

### Remote Setpoint Option

Change setpoint with a 1-5 VDC signal

### Analog Retransmission Option

4-20mA retransmission of PV, SV, MV, DV

### Digital Input Option

Change between 2 setpoints; Change between ramp/soak and standby; Start/reset ramp/soak; Start Stop auto-tune; Cancel alarm; Start timer

### Communications Function

RS485 (Modbus protocol) interface allows monitoring up to 31 units from a PC (Windows based software included)

### How to order

### PX SERIES ORDERING INFORMATION

**P** **X** **R** **A** - **C** **D** **E** **2** - **F** **V** - **G**

#### Box A: Front Panel Size

3 = 1/32 DIN (24x48mm)  
4 = 1/16 DIN (48x48mm)  
5 = 1/8 DIN (48x96mm)  
9 = 1/4 DIN (96x96mm)

#### Box B: Input Signal

T = Thermocouple °C  
R = Thermocouple °F  
N = RTD (Pt 100) °C  
S = RTD (Pt 100) °F  
B = 4-20 mA DC, 1-5VDC  
A = 0-20 mA DC, 0-5VDC

#### Box C: Control Output 1

A = Relay contact (reverse action)  
C = SSR/SSC driver (reverse action)  
E = 4-20 mA DC (reverse action)

#### Box D: Control Output 2

Y = None  
A = Relay contact (reverse action)  
C = SSR/SSC driver (reverse action)  
E = 4-20 mA DC (reverse action)  
R = Retransmission (4-20mA DC)\*  
\*Not available on PXR3



PXR SERIES

#### Box E: Alarm Options

4 = None  
5 = High/low alarm 1 point (PXR3 only)  
6 = Heater break alarm<sup>1,2</sup>  
G = High/low alarm 2 points  
H = High/low alarm 2 points + heater break alarm<sup>1,2</sup>  
M = Alarm 3 points  
D = Remote setpoint<sup>3</sup>  
P = Remote setpoint + alarm 2 points<sup>3</sup>  
<sup>1</sup>Heater break option not available with 4-20mA output, or with 2 digital inputs, or with RS485 + 1digital input  
<sup>2</sup>Heater break option requires current transformers  
<sup>3</sup>Remote setpoint option not available with RS485 + 1digital input

#### Box F: Power Supply

V = Standard (100-240 VAC, 50/60 Hz)  
B = 24 V AC/DC (50/60 Hz)

#### Box G: Additional Functions

0 = None  
M = RS485 communication (Modbus)  
Q = Retransmission + DI 1 point  
R = Retransmission (4-20mA DC)  
S = Digital input (DI) x 1  
T = Digital input (DI) x 2<sup>1</sup>  
V = RS485 communication (Modbus) + DI<sup>1,3</sup>  
<sup>1</sup>Heater break option not available with 2 digital inputs, or RS485 + 1digital input  
<sup>2</sup>Remote setpoint option not available with RS485 + 1digital input